

My sole object in the present communication being to vindicate Mr. Hancock from the charges of error brought against him, which I trust I have now done satisfactorily, I shall leave the discussion of controverted points to some future opportunity.

I am, Gentlemen,
Your obedient servant,

JOSHUA ALDER.

Newcastle-upon-Tyne, 19th August 1854.

XX.—On the Genus *Lycium*. By JOHN MIERS, Esq.,
F.R.S., F.L.S. &c.

[Continued from p. 141.]

2. MESOCOPE. *Corolla infundibuliformis, limbi laciniis dimidium tubi superantibus, sed ejus longitudinem non excedentibus.*

A. GERONTOGÆ.

* *Stamina lævia.* Sp. 39 ad 41.

39. *Lycium Barbarum*, Linn. ex parte, non aliorum; Dunal in DC. Prodr. xiii. 511, cum synonymiis variis ibi relatis.—In Persia Australi, Scinde et Afghanistan.—*v. s. in herb. Hook.* Abouschir (*Aucher Eloy*, n. 5037).—Dalechi, distr. Abouschir (*Kotschy*, n. 166).—Afghanistan (*Griffiths*, n. 670 et 672).—Scinde, Kurdigass (*Dr. Stocks*, n. 995).

This species was well distinguished by Linnæus, though confounded by other botanists and horticulturalists with *L. vulgare* and *L. Europæum*, from which it is marked by very peculiar characters. It is very spinose, with flexuose, knotty, crooked branches, its splitting bark being of a glaucous whitish or brownish hue; the nodes are large and very prominent, often woolly: the leaves, three to five in each axillary fascicle, are linear, obtuse, spathulate at base, diminishing into a short slender petiole; they are 5 to 10 lines long and 1 to 1½ line broad; three to five flowers spring out of each fascicle; the peduncle is very slender, 5 lines long; the campanular and somewhat scarious calyx is very thin in texture, of a pale glaucous hue, is 1½ line broad and long, at first with five short minute teeth, but they become irregularly cleft into one, two, or three longer fissures: the corolla is thin in texture, funnel-shaped, the tube, contracted a little above the base, being 3 lines long, and the five equal, smooth, oblong segments of its border being 2 lines in length: the stamens inserted below the middle of the tube are quite smooth, one being shorter, reaching the mouth, while the other four are

a little longer and somewhat exserted; the immature berries are slightly obovate, apiculated at the summit, and barely 2 lines in diameter. No. 670, from Afghanistan, has a much paler and smoother bark. The specimen from Kurdigass appears to have grown luxuriantly in a moist situation, for the leaves are much larger, and frequently solitary in each axil, being $1\frac{1}{2}$ inch long, and 3 to 5 lines broad*.

40. *Lycium Turcomanicum*, Turczan. MSS. *sp. adhuc indescrpta*; —ramis virgatis, ramulis apice in spinis abeuntibus, axillis sæpe nodosis et ramulis spinescentibus aphyllis; foliis solitariis 2–3nive, oblongis vel lanceolato-oblongis, glaberrimis, eveniis, imo cuneatis: floribus parvis, solitariis, interdum binis ternisve, brevissime pedunculatis, calyce late cupuliforme inæqualiter 5-dentato, dentibus acutis, sparse ciliatis, corollæ tubo striato imo valde contracto, superne late infundibuliformi, glabro, limbi laciniis 5, ovatis, tubo tertio brevioribus, margine subciliatis, staminibus 5, inæqualibus, exsertis, filamentis omnino glabris, medio tubi insertis, 3 paullo longioribus, laciniis limbi æquantibus.—Turcomania.—*v. s. in herb. Hook. (Turczaninow)*.

A plant bearing greatly the aspect of the specimens of *L. Barbarum*, from Scinde and Afghanistan; differing in its more angular branches, the shorter peduncles of its flowers, and the proportions of its floral parts. The larger leaves measure $1\frac{1}{2}$ inch in length, 5 lines in breadth; the peduncle is $1\frac{1}{2}$ line long, the calyx 1 line long and broad, the tube of the corolla $2\frac{1}{2}$ lines long, and the segments of its border 1 line in length †.

41. *Lycium Edgeworthii*, Dun. in DC. Prodr. xiii. 525; —intricatissimo-ramosum, spinosum, cortice cretaceo rimoso: cat. ut in char. citat. except. in sequentibus; corolla extus glabra; sed intus circa insertionem staminum sæpe pilosiuscula, filamentis omnino glabris, circa medium tubi insertis, 2 minoribus faucem attingentibus, 3 longioribus exsertis.—Beloochistan.—*v. s. in herb. Hook. (in montibus sursum Kelât, versus Johan.) Dr. Stocks, n. 1117.*

This species is probably widely distributed through Scinde, Cabul, and Upper India: the habit of Dr. Stocks' plant is different from the specimen from the Punjab, collected by Mr. Edgeworth, according to the description above quoted of M. Dunal: the former is very thorny, of bare and stunted growth, with

* Sectional details of this species are shown in the 'Illustr. South Amer. Plants,' vol. ii. plate 69 D.

† This plant with an analysis of its flower is represented (*loc. cit.*) plate 69 E.

twisted and interlaced branches and small leaves, and has evidently grown in an exposed and arid situation; while the latter has long, slender, virgate branches, and abundant foliage of much larger leaves, and was apparently produced in a damp and sheltered places, favourable to its more luxuriant growth. Dr. Stocks' specimens present more the aspect of *L. Barbarum*, but are distinguished by their much shorter peduncles, more fleshy leaves, and a generally more tartareous appearance; the very flexuose divaricating branches are covered with a splitting bark of a cretaceous hue, with fascicles of few leaves (three to six) proceeding out of the knotty base of the axillary spines: the leaves are linear, obtuse at the summit, tapering below into a short petiole; they are remarkably thick and fleshy, of a pale glaucous hue, 4 to 9 lines long and $\frac{1}{2}$ line broad: one to five flowers grow out of each fascicle; the peduncle is 2 lines long; the pale glaucous, tubular calyx, often unequally cleft, is $1\frac{1}{2}$ line long: the tube of the corolla, greatly contracted in its lower moiety and funnel-shaped above, is 3 lines long, the oblong segments of its border being 2 lines in length; it is quite smooth, excepting a little appearance of pubescence about the insertion of the stamens, which are unequal in length, the filaments being quite smooth, one not extending beyond the mouth of the tube, two of the length of the segments, and the other intermediate; the style is the length of the longer stamens. It will be seen how little this structure differs from *L. Barbarum*, and it might be almost considered as a mere variety of that species, from which it is easily distinguishable by the characters above enumerated*.

** *Staminibus imo hirsutis.*

42. *Lycium Ruthenicum*, Murray, Comm. Gött. 1779, p. 2. tab. 2; Willd. Sp. i. 1058; Dunal in DC. Prodr. xiii. 514, cum aliis synonym. (excl. *L. Tataricum*).—In Siberia et Russia Australi.—*v. s. in herb. Hook.* (Mare Caspico) *ex herb. Acad. Petropol.*—(Iberia orientali) *W. Busen*;—*et in herb. Lindley, Hort. Chisw. cult. sub nom. L. carnosum.*

A plant completely with the habit of *L. Barbarum*, but differing in the structure of its flowers. The stems are smooth, very pale, flexuose, with spinose spreading branchlets; the axils are nodose; the leaves, two to four in each axillary fascicle, 8 to 15 lines long and 1 to $2\frac{1}{2}$ lines broad, are quite smooth and fleshy: several flowers spring out of each fascicle; the peduncles are $2-2\frac{1}{2}$ lines long, the calyx 1 line, the tube of the corolla 3 lines, the segments of the border 2 lines, the filaments are

* This plant with its floral analysis is drawn (*loc. cit.*) in plate 69 F.

inserted about the middle of the tube, and are hirsute towards the base, smooth above, reaching the extremities of the border-segments*.

*** *Staminibus imo fascicula pilorum barbatis.* Sp. 43 ad 47.

43. *Lycium vulgare*, Dunal in DC. Prodr. xiii. 509, cum omn. synonym. ibi citat. *Lycium Chinense*, Miller, *Dunal in DC. ibidem*, 510, cum suis respectivis synonym. *Lycium megistocarpum*, Dunal, *ibid. cum synonym.* *Lycium subglobosum*, Dunal, *ibid.* *Lycium Cochinchinense*, Lour.; *Dunal ut supra citat*;—fruticosum, erectum, glabrum, inerme, vel sæpe sparse spinosum, ramulis angulatis, virgatis, arcuato-nutantibus; foliis subalternis, rarius fasciculatis, ovatis, vel ellipticis, apice subacutis, vel obtusis, imo cuneatis, vel in petiolum tenuem spatulatis, junioribus lanceolatis: floribus ex axillis solitariis, aut 2 ad 6, pedicello filiformi, flore longiori, calyce tubulari, breviter 5-dentato, sæpe in laciniis 2-3 rupto, glabro, textura tenui, dentibus margine subciliatis, corollæ tubo imo coarctato, mox infundibuliformi, limbi laciniis oblongis, striato-reticulatis, violaceis, expansis, tubo fere æquilongis; staminibus 5, fere æqualibus, exsertis, filamentis in tubi constrictionem insertis, hinc geniculatis et glabris, mox fascicula densa pilorum barbatis, superne glabris et filiformibus, apice laciniarum attingentibus: bacca rubro-aurantiaca, ovata, vel conico-oblonga, sæpe incurva, calyce fisso suffulta.—Ubique in Europa australi, Africa et Asia, præsertim in China.—*v. s. in herb. variis, specimen. plurimis ex Europa. In herb. Hook., China (Fortune, 48 et 57).* Loo-choo (*Beechey*).

On comparing original specimens from China with those of European growth and those of Western Asia, I cannot detect the smallest essential difference between them; and on examining carefully all the details registered concerning the various species above comprehended in this one, I cannot discover any character that can possibly separate them, except such small variations in the shape of the leaves as we frequently meet with in the same specimen: in the length and number of the peduncles, the form of the calyx, the structure of the corolla, and especially of the stamens, and in the size, shape, and colour of the fruit, they closely resemble one another: under such circumstances it appears to me desirable to unite them all under one common specific character. The observation of M. Dunal almost confirms this, for he states that this species has in all likelihood been introduced into Europe from the East, which is rendered more

* This species is shown (*loc. cit.*) plate 70 A.

probable from the record of its being used from the earliest periods by the Persians, Greeks, and Romans for ornamental hedges. In favourable positions the leaves often attain a size of $2\frac{1}{2}$ inches in length, including the petiole, and $1\frac{1}{4}$ inch in breadth; the peduncles are 4 to 6 lines long; the calyx 2 lines, the tube of the corolla 3 lines, the segments of the border $2\frac{1}{2}$ lines, and the stamens extending beyond the mouth of the tube $2\frac{1}{2}$ lines; the berry is from 5 to 8 lines long and 4 lines broad. Intermediate with the globular fascicles upon the stamens, an equal number of tufts of hair are seen on the tube of the corolla, upon the central nervure that runs from the apex of each segment to the base; an excellent analysis of the flower is given in Nees' Flor. Germ. Several varieties, cultivated by gardeners under the names of *L. ovatum*, *Trewianum*, *carnosum*, *latifolium*, &c., may be referred here*.

44. *Lycium Kraussii*, Dun. in DC. Prodr. xiii. 517.—C.B.S.

Of this species I am unable to form an opinion, not having met with any specimen that corresponds with the description given, as above cited: M. Dunal appears to doubt its being a valid species, and asks whether it may be only a variety of *L. cinereum*, Thunb.

45. *Lycium rigidum*, Thunb. Prodr. 37; Linn. Trans. ix. 152, tab. 14; Dunal in DC. Prodr. xiii. 522.—C.B.S.

I have not met with any specimen that corresponds with this plant of Thunberg, although M. Dunal describes a specimen from the collection of M. Drège: I infer from that description that it must belong to this section. It is evident however that many Cape plants that have been referred to this species do not belong to it: for instance, the variety γ . *angustifolium* of M. Dunal (*loc. cit.* p. 523), from Drège's collection, *sub nom.* *L. rigidum*, and which I find also under this name in Sir W. Hooker's herbarium, is manifestly a specimen of *L. Afrum*: so also from the same collection a plant distributed under the name of *L. campanulatum*, E. Mey., and referred by M. Dunal to *L. rigidum*, var. β . *latifolium-grandiflorum*, from the specimen in Sir W. Hooker's herbarium, is also *L. Afrum*: it is not unfair to conclude that the other variety, α . *latifolium-parviflorum*, belongs to some other species.

46. *Lycium Requieni*, Dunal in DC. Prodr. xiii. 520.—Patria ignota.

This plant, cultivated in the Botanic Garden of Montpellier

* This species with sectional details is given (*loc. cit.*) in plate 70 B.

under the name of *L. carnosum*, is probably of African origin. From M. Dunal's description I have placed it in this section.

47. *Lycium prunus spinosi*, Dunal in DC. Prodr. xiii. 515.—C.B.S. (*Drège*, n. 7871).

I have not seen a specimen of this species, but from M. Dunal's account of it I have stationed it here.

**** *Filamenta basi glandula lineari fimbriata donata.*

Sp. 48 ad 49.

48. *Lycium Tataricum*, Pallas, Flor. Russ. i. 78. tab. 49. l. Ruthenicum, Dunal (non Murr.) in Prodr. DC. xiii. 514;—fruticosum, glaberrimum, intricato-spinosum, ramulis pallidis, flexuosis, nodis spinescentibus, approximatis; foliis plurimis (6-8) fasciculatis, linearibus, spathulatis, obtusis, carnosulis; floribus e fasciculis solitariis, rarius geminis, calyce pedunculo breviori, poculiformi, subscarioso, inæqualiter 3-4-fisso, laciniis rotundatis, corolla imo coarctata, superne infundibuliforme, limbi laciniis oblongis, tubo 2-3tio brevioribus, staminibus exsertis, filamentis imo in glandulam linearem margine ciliatam expansis.—Rossica australis.—v. s. in herb. Hook. ex herb. Pallas.

This is certainly very distinct in the structure of its flowers from *L. Ruthenicum*: the nodes are about $\frac{1}{4}$ inch apart, the spines of the same length, the leaves 3 to 5 lines long, and barely a line broad: the pedicels are 3 lines, the calyx $1\frac{1}{2}$ line, the tube of the corolla 3 lines, the segments of the border 2 lines long; the stamens, inserted in the lower portion of the tube, have a long basal expansion which is ciliated on the margin; the stamens are equal, and nearly attain the length of the segments*.

49. *Lycium ferocissimum* (n. sp.);—fruticosum, ramosissimum, glaberrimum, ramis griseo-pruinosis, ramulis horizontaliter divaricatis, validis, apice spinosis, spinis giganteis efformantibus, axillis globoso-nodosis; foliis e nodis fasciculatis, obovato-vel oblongo-spathulatis, obtusis, carnosulis; floribus e fasciculis solitariis vel binis, longe pedunculatis, calyce tubuloso, majusculo, carnosus, breviter 5-dentato, dentibus margine ciliatis, imo longiusculo, corollæ tubo infundibuliformi, imo angustato, calyce vix longiori, limbi laciniis 5, oblongis, reticulato-venosis, tubo fere æqualibus; staminibus in constrictionem tubi insertis, filamentis imo geniculatis et in glandulam linearem margine densissime tomentosam expansis, superne

* A representation of this plant with floral sections is shown (*loc. cit.*) in plate 70 C.

glabris, inæqualibus, 2 versus apicem, 3 ad medium limbi attingentibus; stylo staminibus majoribus æquante: bacca pisi magnitudine, calyce fisso suffulta.—C.B.S.—*v. s. in herb. Hook. Uitenhag (Harvey, n. 105).*

This is a species evidently allied to *L. rigidum*, Thunb., differing in its thick gigantic spines, its broader leaves, its much bigger calyx and larger flowers. The spines are from 2 to $2\frac{1}{2}$ inches long; the leaves are 6–10 lines long, $2\frac{1}{2}$ –4 lines broad; the peduncle 4 lines long, the calyx 3 lines long and $2\frac{1}{2}$ lines in diameter; the tube of the corolla is a trifle longer than the calyx, and the segments of the border about the same length; the berry is globular, 3 lines in diameter*.

B. NEOGÆÆ.

* *Stamina levia.*

50. *Lycium capillare* (n. sp.);—fruticulosum, inerme, ramulis virgatis, valde gracilibus, horizontaliter divaricatis, albo-pubescentibus, lineis helvolis e nodis utrinque decurrentibus angulato-striatis: foliis fasciculatis (5–8), e nodis cupularibus capillari-linearibus, minutissime pubescentibus, carnosulis; floribus solitariis, parvulis, pedunculo gracili, calyceque parvo, poculiformi, 5-striato, 5-dentato, subpubescente, dentibus glabris, acutis: corolla tubulosa, glabra, tubo profunde 5-sulcato, limbi laciniis 5 oblongis, margine ciliolatis tubo paullo brevioribus: staminibus æqualibus, exsertis, filamentis medio tubi insertis, glabris, ad medium limbi attingentibus: bacca pisi minoris magnitudine, rubra, calyce fisso suffulta.—In prov. Mendozae Argentinorum, in desertis salitrosis.—*v. v.*

I found this plant in the Travesia of Mendoza, a desert plain near the foot of the Andes, and at La Dormida, in the same province. It is a very distinct species, not only on account of its extremely capillary leaves, but of its perfectly glabrous stamens. The leaves are about 4 lines long and $\frac{1}{8}$ th of a line broad; the capillary peduncle is 2 lines long, the calyx $\frac{3}{4}$ line, with teeth one-third of its whole length; the tube of the corolla is rather broad, is deeply sulcated opposite the stamens, and is 3 lines long, the lobes of the border being 2 lines in length; the thick, fleshy, smooth filaments are $2\frac{1}{4}$ lines long; the berry is somewhat ovate and apiculate, 2 lines long†.

** *Stamina imo hirsuta.* Sp. 50 ad 54.

51. *Lycium floribundum*, Dun. in DC. Prodr. xiii. 513.—In

* This species with analytical details is given (*loc. cit.*) in plate 70 D.

† This species with sectional details is drawn (*loc. cit.*) in plate 70 E.

prov. Mendozae (ad Jarillal circa Mendozam) et in prov. Sanctæ Ludovicæ Argentinorum (ad Alto del Yeso) (*mihi lectum*); circa Mendozam (*Bacle in herb. Moricand*); Chile, in herb. *Lindley*; ad Coquimbo (*MacRae*).

The name of *floribundum* is ill applied to this very distinct species, for it is generally very sparse of flowers, although Bacle's specimen, like that collected by me at the Alto del Yeso, may have presented more flowers than usual. It is of very straggling growth, the tortuous branches spreading out at right angles: the spines are generally $\frac{3}{4}$ inch long, and slightly bent and recurved; they are all covered with a whitish pubescent bark, marked by reddish longitudinal lines, decurrent from the angles of each cup-shaped node: the spines have many gemmiferous axils; the leaves are fasciculate in each closely approximate node, are spathulately ovate, fleshy, covered with short, simple, and glandular hairs, mixed together, and proceeding out of as many whitish rugous spots; they are 2-2½ lines long, $\frac{3}{4}$ -1 line broad; the flowers are solitary in each fascicle, $\frac{1}{2}$ line long; the calyx is pubescent, tubular, 2 lines long, half-cleft into five rather equal, lanceolate acute teeth, which are somewhat recurved at their apex: the tube of the corolla is cylindrical, and slightly funnel-shaped above, but constricted a little above the base, is 2½ to 3 lines long, and is covered with short glandular hairs; the segments of the border are oblong, and 1¼ line long: the stamens are inserted about the middle of the tube; the filaments are hirsute at base, smooth above; the two shortest reach the middle, the three longer attain the extremity of the segments: the style is even longer: the corolla, as in other species of this genus, breaks off by a circumscissile line above its base, leaving the ovary half surrounded by a cup-shaped process. In the specimen from El Alto del Yeso, the spines are fertile to the extremity, the leafy fascicles being only 1 line apart: the berry is globular, apiculated, 1½ line diameter. The specimen from Coquimbo agrees in all respects with the others, except that the ramifications are more intricately branched and spinose; the bark is darker, more striated and pubescent, and the leaves are smaller; the axillary nodes, however, are equally approximate, and the flowers are exactly similar in size and structure*.

52. *Lycium rachidocladum*, Dun. in DC. Prodr. xiii. 519;—intricato-ramosum, spinosum, ramulis rufescente-roridis, glandulis glutinoso-resinosis et pilis articulatis vestitis, spinis junioribus acutis, gemmiferis, adultioribus tortuoso-ramiformibus: foliis parvis, obovatis, carnosissimis, apice rotundis, imo in

* A drawing of this plant with floral sections is given (*loc. cit.*) in plate 70 F.

petiololum tenuem spathulatis, utrinque viscoso-puberulis, pilis crebris, brevissimis, crassiusculis, glanduliformibus; floribus subsolitariis, breviter pedunculatis, calyce inæqualiter 4- rarius 5-fido, segmentis acutis, subreflexis, utrinque glanduloso-pubescentibus; corollæ tubo extus glandulis brevibus farinoso-puberulis, calyce 2plo longiore, infundibuliforme, limbi laciniis 5, oblongis, margine ciliatis, tubo brevioribus: staminibus 5 inæqualibus, 3 longioribus laciniis æquilongis exsertis, filamentis tenuibus, medio tubi insertis, imo geniculatis et longe hirsutis, superne glabris: stylo exserto, cum ovario articulado; ovario corollæ reliquo semi-vestito.—Chile.—*v. s. in herb. Lindley* (Coquimbo) *MacRae*.

This species differs little from *L. floribundum*, Dun., but its branches are more intricately spreading and spinose, the bark is darker and more farinose, the leaves are smaller and more oblong; on the other hand, their axillary nodes are equally approximated, and there is no difference in the size or structure of the flower. The leaves are $1\frac{1}{2}$ to 2 lines long, $\frac{3}{4}$ line broad; the barren spines are 2 to 3 lines, the gemmiferous 4 to 6 lines or longer; the peduncle $\frac{3}{4}$ line; the calyx $1\frac{1}{2}$ line long, cleft nearly halfway into five very acute teeth; the tube of the corolla is 2 lines, and its segments $1\frac{1}{2}$ line long; it is glabrous, except near the point of insertion of the stamens: the filaments are pilose at their base for a quarter of their length, three of them reach the extremity of the segments, two are shorter; the slender style is the length of the longer stamens, and is articulated with the ovarium*.

53. *Lycium tenuispinosum* (n. sp.);—fruticosum, intricato-ramosum, ramulis helvolis, viscoso-puberulis, valde divaricatis, tenuiter et crebre spinosissimis: foliis minutis, fasciculatis, anguste linearibus, viscoso-puberulis; floribus e fasciculis solitariis, calyce tubuloso, pilis articulatis crebre pubescente, ultra medium 5-fido, segmentis lanceolatis, subreflexis, pedunculo gracili æquilongo; corolla tubulosa, tubo calyce æquante, parte infimò cylindrico, attenuato, pilosulo, superiori inflato, glabro, limbi laciniis tubo brevioribus, oblongis, staminibus exsertis, filamentis supra medium insertis, hinc geniculatis et hirsutis, 2 ultra faucem prolatis, 3 fere ad apicem laciniarum extensis.—Circa Mendozam in aridis petrosis.—*v. v.*

This species, which I found near Mendoza, in the desert tract called La Travesia, in many points resembles *L. floribundum* and *rachidocladum*, but is widely distinct. It is remarkable for its almost denuded, slender, spreading branchlets, armed with short, closely-set, needle-like spines; they are generally 2 or 3 lines

* This species with analytical details is shown (*loc. cit.*) in plate 71 A.

long and 1 or 2 lines apart, furnished at their base with a fascicle of four to six minute linear subulate leaves, barely $\frac{3}{4}$ line long; a few of the fascicles bear a single flower, the peduncle of which is $1\frac{1}{2}$ line long; the calyx is $2\frac{1}{2}$ lines long; the tube of the corolla measures $2\frac{1}{2}$ lines, and the segments of the border $1\frac{1}{4}$ line in length; the stamens are inserted above the middle of the tube, where it is pubescent, they are considerably hirsute at their lower part, and smooth above; the hairs that clothe the pedicel and calyx are dense and articulated; the style exceeds the length of the stamens*.

54. *Lycium stolidum* (n. sp.);—fruticosum, glaberrimum, ramis flexuosis, ramulis intricato-divaricatis, spinoscentibus, cortice rimoso, striato, griseo, nodis approximatis, spinis brevibus imo foliosis; foliis (2-5) fasciculatis, spatulato-linearibus, obtusis, carnosulis, pallidis; floribus e fasciculis binis, parvulis, pedunculo tenui, calyce parvo æqualiter ac breviter 4-dentato, corolla lævi, pallida, textura tenui, tubo imo coarctato, superne subcampanulato, limbi laciniis 4, tubo vix dimidio longitudine, oblongis, acutiusculis, reflexis; staminibus 4, æqualibus, longe exsertis, filamentis in contractionem basalem insertis, hinc geniculatis et hirsutis, superne glabris, apice limbi attingentibus, stylo æquilongis, tubo circa insertionem filamentorum piloso; bacca globosa, piso minori, apiculata, calyce suffulta.—Texas.—v. s. in herb. Hook. Paso del Norte (*Wright*, no. 540, 542).

A plant not unlike *L. Barbarum* in habit. Owing to the close approximation of the nodes, which are only $\frac{1}{4}$ inch apart, the leaves are somewhat crowded; they are 5 to 7 lines long, 1 line broad; the slender peduncle measures $2\frac{1}{2}$ lines, and the narrow calyx 1 line; the tube of the corolla is $2\frac{1}{2}$ lines long, and the reflexed broad segments of the border are 1 line in length; it is thin in texture and pale when dried; the filaments are inserted above the basal contraction of the tube, are hirsute below, slender and smooth above, and attain the length of the segments of the border: the berries are small, apparently red, 2 lines in diameter, and contain eight seeds, which are flattened; these have a helically spiral embryo†.

*** *Filamenta paullo supra basin fasciculo pilorum donata.*

Sp. 55 ad 58.

55. *Lycium spinulosum* (n. sp.);—virgato-ramosum, ramulis helvolis, striatis, pilosis, patentibus, tenuiter spinosis, inferioribus

* A representation of this plant, with analysis of its flowers, is given (*loc. cit.*) in plate 71 B.

† This species with floral sections is drawn (*loc. cit.*) in plate 71 C.

subnudis, superioribus foliiferis, axillis nodosis approximatis, spinis acicularibus, gemmiferis; foliis fasciculatis (2-5) oblongis, apice acutis, basi in petiolum brevissimum cuneatis, valde crassis, utrinque pilosis, pilis brevibus articulatis, nonnullis apice glandulosis; floribus solitariis, pedunculo brevi, calyce majusculo, glanduloso-piloso, pedunculo 3plo longiore, tubuloso, ultra medium 5-fido, segmentis rigidis, lanceolatis, acutissimis; corolla glabra, tubo infundibuliformi calyce æquilongo, limbi laciniis fere dimidio brevioribus, oblongis; staminibus 5, longe exsertis, filamentis medio tubi insertis, hinc geniculatis et glabris, mox infra faucem fasciculo pilorum barbatis, et ore claudentibus, 2 longioribus apice limbi attingentibus, 3 paullulo brevioribus.—Circa Mendozam.—v. v.*

This plant, gathered by me in the Travesia of Mendoza, in the year 1826, is certainly a distinct species: it bears greatly the habit of *L. tenuispinosum*, but its branches are straighter, the spines stronger, the leaves larger, the calyx of much greater size and more rigid in its texture, and the stamens are of different structure. It is at once distinguished by its peculiar calyx. The spines measure 2 lines, the leaves, including the petioles, are 3 lines long and 1 line broad; the peduncle is 1 line; the calyx 3 lines in length, the tubular portion being only $\frac{3}{4}$ line; the tube of the corolla measures 3 lines, the segments of the border 2 lines.

Var. β. parvifolium, Gill. MSS., is a more intricately nodose plant, becoming with age more glabrous; the leaves are more linear, smaller, $2\frac{1}{2}$ to 3 lines long, $\frac{1}{4}$ line broad: the flowers do not differ from the former in size or structure; it was found by Dr. Gillies in the Travesia, and is preserved in Sir Wm. Hooker's herbarium.

56. *Lycium infaustum* (n. sp.);—intricato-ramosum, spinosum, glaberrimum, ramulis pallidis, angulato-costatis; foliis paucis, minutis, alternis vel fasciculatis, obovatis, vel spathulato-oblongis, carnosulis, pallidis; floribus solitariis, glabris, longe et gracile pedunculatis, calyce parvulo, urceolato, crasso, breviter 5-dentato, dentibus triangularibus, acutis; corolla infundibuliformi, limbi laciniis ovatis, tubo brevioribus, staminibus 5 æqualibus, longe exsertis, filamentis medio tubi insertis, imo glabris et geniculatis, mox fasciculo pilorum barbatis et faucem claudentibus, superne filiformibus, glabris, apice limbi paullo excedentibus, tubo globulis 5 pilorum inter fasciculos staminum alternantibus; bacca globosa, coccinea, piso minori.

* A representation of this plant with analysis is given (*loc. cit.*) in plate 71 D.

—In Prov. Argentinorum Australioribus.—*v. s. in herb. Hook. (Tweedie.)*

This plant was found by Tweedie in the southern portion of the province of Buenos Ayres, always called by him Patagonia. It is remarkable for its small ericoid leaves, which are $1\frac{1}{2}$ to $2\frac{1}{2}$ lines long and 1 to 2 lines broad: the peduncle measures 2 lines, the calyx 1 line, the tube of the corolla 3 lines, the segments of its border 2 lines, all being quite smooth except the five barbate tufts that alternate with the hairy pellets of the stamens*.

57. *Lycium Martii*, Sendtn. Flor. Bras. fasc. 6. Sol. 154; Dunal in DC. Prodr. xiii. 512.—Brasilia (in Prov. Bahia) ad fluv. S. Francisco prope Joazeiro.

58. *Lycium Carolinianum*, Mich. Fl. Bor. Amer. i. 95; Walt. Fl. Carol. 84; Pursh, Fl. Amer. Sept. i. 97; Dunal in DC. Prodr. xiii. 513. *L. salsum*, Bartr. Trav. 59. *nec R. & P.* *L. quadrifidum*, Moç. et Sessè, Ic. Mex. Coll. Cand. t. 914. Panzera Caroliniana, Gmel. Syst. i. 247;—fruticosum, inerme, glaberrimum, ramulis rectis, striatis, rarius spinosis; foliis alternis, rarius fasciculatis, spathulato-lanceolatis vel linearibus, acutis aut obtusiusculis, crassis, eveniis; floribus solitariis, folio brevioribus, tetrameris, pedunculo elongato, calyce campanulato, grosse 4-dentato, corolla cærulescente, tubo infundibuliformi, imo crassiore, supra basin constricto, limbi laciniis tubo brevioribus, staminibus 4 subæqualibus, exsertis, filamentis longè subtus medium tubi insertis, imo geniculatis et fascicula oblonga pilorum dense barbatis: bacca cerasi parvi magnitudine, rubra.—America Septentrionali.—*v. s. in herb. Hook. (Galveston Bay, Tennessee) Drummond. (Rio Brazos, Texas) Drummond. (New Orleans) Drummond, n. 234. (Circa Laredo) Berlandier (n. 1502 et 242). In herb. Lindley (Texas) Drummond.*

This well-known species, long since established upon very distinct characters, appears to differ in no essential respect from the plant described by Moçino and Sessè, and which may safely be considered as identical with it, especially as I find the description of its fruit corresponds with the specimen above noticed from New Orleans. The leaves are generally single and alternate, from 7 to 18 lines long and $1\frac{1}{2}$ to $2\frac{1}{2}$ lines broad, narrowing at the base into a short channelled petiole: the peduncle is slender below, thicker at its apex, and is from 5 to 8 lines long; the cup-shaped calyx is nearly 2 lines in length, with four short

* This plant with floral details is shown (*loc. cit.*) in plate 71 E. *Ann. & Mag. N. Hist. Ser. 2. Vol. xiv.*

triangular teeth, ciliated at their points, but it is afterwards split irregularly into larger segments: the tube of the corolla is 3 lines long, the oblong segments of its border $2\frac{1}{2}$ lines; the filaments arise in the mouth of the basal constriction of the tube, and present a dense oblong brush of hairs at their geniculated origin, their summits attaining the length of the middle of the segments, two of them being a trifle shorter; the style far exceeds the length of the stamens: the crimson globular or oval berry is somewhat apiculated, and 5 lines in diameter*.

**** *Filamenta imo glandula lineari carnosae margine ciliata donata.* Sp. unica.

59. *Lycium ignarum* (n. sp.) ;—fruticosum, ramulis longe virgatis, dependentibus, angulato-striatis, pallidis, rarissime spinoscentibus, nodis axillaribus cupulatis; foliis alternis ternisve, elliptico-oblongis, utrinque subattenuatis, subpallidis, textura tenuibus, nervosis, utrinque sub lente albo-punctulatis, margine obsolete ciliatis, breviter petiolatis; floribus solitariis, longe et gracilente pedunculatis, calyce urceolato, striato, membranaceo, pubescente, æqualiter 5-dentato, dentibus lanceolatis, acutis, tubo dimidio brevioribus; corolla extus pubescente, imo densiter tomentosa, sicco pallida, tubo infundibuliformi, calyce duplo longiore, limbi laciniis 5, reticulato-nervosis, staminibus 5 æqualibus, exsertis, filamentis circa basin tubi insertis, hinc geniculatis et glandula adnata oblonga latiuscula margine ciliata donatis, superne membranaceis, gradatim angustioribus, vix apicem laciniarum attingentibus; stylo staminibus æquilongo; stigmatibus sub-2-labiato.—Patria ignota: an America meridionali?—*v. s. in herb. Lindley in hort. Soc. Hortic. cult. sub nomine L. Sinense.*

This plant has much of the habit of *L. erosum*, and from many peculiar points of analogy, I have little doubt is of South American origin. The leaves are 19 lines long and 7 lines broad, the peduncle of the flower $4\frac{1}{2}$ lines, the calyx 2 lines, the teeth being equal in length to the tube, the corolla 6 lines, the tube being 3 lines long, and the segments of the border the same length †.

* A representation of this species with structural details is given (*loc. cit.*) in plate 71 F.

† This plant with analytical sections of the flower is shown (*loc. cit.*) in plate 72 A.

[To be continued.]